DOCUMENT RESUME

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| | |
|---|---|
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| AVAILABLE FROM | For full text: http://www.wcp.ca/. |
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| EDRS PRICE | MF01/PC02 Plus Postage. |
| DESCRIPTORS | *Educational Resources; Foreign Countries; Grade 10; Grade 11; Grade 12; High Schools; Instructional Materials; *Mathematics Curriculum; *Mathematics Instruction; Resource Materials |
| IDENTIFIERS | *Canada (West) |

ABSTRACT

This annotated bibliography identifies the new English-language resources with new components endorsed by all Western Canadian Protocol (WCP) jurisdictions implementing the Common Curriculum Framework for K-12 Mathematics Grade 10 to Grade 12. Resources listed in this annotated bibliography were selected through a collaborative review process based on their high level of fidelity to the rationale, philosophy, mathematical processes, and outcomes of the Common Curriculum Framework. Resources underwent an intensive review and were found to be the most suitable of those submitted. During this review depth and teacher resources were identified for Applied Mathematics 10, 11, and 12. Breadth, depth, breadth and depth, and teacher resources were identified for Pure Mathematics 10, 11, and 12. WCP Key Resources are high quality learning and teaching resources that best address the philosophy and content of the outcomes embodied in the Common Curriculum Framework. These include resources in a variety of media and formats with the following characteristics: (1) Breadth identifies learning resources with the highest possible level of fidelity to the general and specific outcomes published for a course; (2) Depth identifies learning resources that address a limited range of general and specific outcomes for a cluster or set of clusters, but provide an especially effective learning experience for students; (3) Breadth and depth identify comprehensive learning resources that provide both the breadth and depth dimensions for a particular course; and (4) Teacher identified resources are those that assist teachers in the implementation of the Common Curriculum Framework and any courses derived from it. Each annotation includes series and title, resource designation, format, alternate format(s), cluster(s) grid(s), annotation, comments, cautions, system requirements, audience, course(s) grid(s), mathematical process(es) grid, and strand(s)/substrand(s) grid(s). (ASK)

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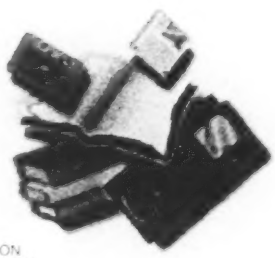
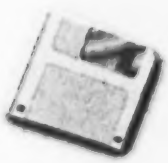
ED 452 080

WESTERN CANADIAN PROTOCOL
for collaboration in basic education
COMMON CURRICULUM FRAMEWORK

# Grade 10 to Grade 12 Mathematics Resources

## Annotated Bibliography





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**August 2000**

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SE 046 082

# Western Canadian Protocol for Collaboration in Basic Education Common Curriculum Framework

## Grade 10 to Grade 12 Mathematics Resources

## Annotated Bibliography

AUGUST 2000

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CATALOGUING IN PUBLICATION DATA (ALBERTA)

Grade 10 to grade 12 mathematics resources : annotated bibliography.

Available in electronic format on the World Wide Web:
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ISBN 0–7785–1087–5

1. Mathematics — Study and teaching — Alberta — Bibliography.
2. Mathematics — Study and teaching — British Columbia — Bibliography.
3. Mathematics — Study and teaching — Manitoba — Bibliography.
4. Mathematics — Study and teaching — Saskatchewan — Bibliography.
5. Mathematics — Study and teaching — Northwest Territories — Bibliography.
6. Mathematics — Study and teaching — Yukon Territory — Bibliography.
I. Title: Common Curriculum Framework. II. Western Canadian Protocol for Collaboration in Basic Education.

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Title Listing ..... Title Listing – Page 1




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# INTRODUCTION

## Background

The Western Canadian Protocol for Collaboration in Basic Education Kindergarten to Grade 12 was signed in December 1993 by the ministers of education from Manitoba, Saskatchewan, Alberta, British Columbia, Yukon Territory and the Northwest Territories. *The Common Curriculum Framework for K–12 Mathematics*, for Kindergarten to Grade 9, was released in June 1995 and Grade 10 to Grade 12 was released in June 1996.

## Foreword

This annotated bibliography identifies the new English language resources and resources with new components, endorsed in April 2000, by all Western Canadian Protocol (WCP) jurisdictions implementing *The Common Curriculum Framework for K–12 Mathematics Grade 10 to Grade 12* (Common Curriculum Framework).

For a complete listing of WCP approved resources for Grade 10 to Grade 12 mathematics, refer to:

- this August 2000 edition of the WCP *Grade 10 to Grade 12 Mathematics Resources Annotated Bibliography*
- the other editions of July 1999 and May 1998
- the WCP web site <http://www.wcp.ca>.

**Note:** The term "pure mathematics" is used in this document to emphasize the difference between pure and applied mathematics.

Resources in this annotated bibliography were selected through a collaborative and intensive review process. Based on their high level of fidelity with the rationale, philosophy, mathematical processes and outcomes of the Common Curriculum Framework, these resources were found to be the most suitable of those submitted.

During this review, depth and teacher resources were identified for Applied Mathematics 10, 11 and 12. Breadth, depth, breadth and depth, and teacher resources were identified for Pure Mathematics 10, 11 and 12.

**Note:** See definitions on page 3 for clarification of terms used in this bibliography.

## Acknowledgments

In 2000, approximately 60 items were received in response to the invitation to publishers, producers, and distributors for submission of resources to support the Grade 10 to 12 Common Curriculum Framework. The WCP jurisdictions extend their appreciation to those involved in the review and selection processes to identify the best student and teacher resources:

- 9 teachers and some ministry staff selected by the participating jurisdictions to review the items
- all the school systems in the WCP jurisdictions that supported teachers participating in the review process
- the publishers, producers and distributors who, in many cases, engaged in significant development to provide resources specifically designed for the Common Curriculum Framework

## Future Calls for Resources

This third call for resources for Grade 10 to Grade 12 mathematics resulted in the approval of additional resources to supplement the set of resources that support


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the Common Curriculum Framework. However, there are still some gaps in the resource base to address some of the courses and clusters.

A fourth and final planned call for Grade 10 to Grade 12 mathematics resources was issued in November 1999, with a submission deadline of early 2001. Therefore, additional resources should be added to the WCP resource collection in the spring of 2001.

**Applied Mathematics Resources**

The first call for applied and pure mathematics Grade 10 to Grade 12 resources was issued on June 25, 1996. By the spring of 1997, there were concerns that there might not be any applied mathematics breadth resources developed and submitted for review by the February 2, 1998 submission deadline. Correspondence with publishers confirmed this assumption. A "Request for Proposal" to develop applied mathematics breadth resources for grades 10, 11 and 12 was issued in the fall of 1997. Submissions were received and evaluated. Pearson Education Canada was selected to prepare an applied mathematics resource for each of grades 10, 11 and 12.

The provisional timelines for developing the materials are as follows:

Applied Mathematics – Grade 10

- Student's text (Source Book and Project Book) and the Teacher's Resource Book are currently available.

Applied Mathematics – Grade 11

- Student text – June 15, 2000
- Teacher's Resource Book in three stages – August 2000, October 2000 and December 2000

Applied Mathematics – Grade 12

- Selected manuscript – June 15, 2000
- Entire preprint document without colour – August 15, 2000
- Teacher's Resource Book in three stages – August 2001, October 2001 and December 2001.

**Pure Mathematics Resources**

As a result of the three calls for Grade 10 to Grade 12 mathematics resources, breadth and depth resources for Pure Mathematics 10, 11 and 12 were identified as follows:

Pure Mathematics – Grade 10

- Four multicomponent series approved as either breadth and depth or breadth resources.

Pure Mathematics – Grade 11

- Three multicomponent series approved as breadth and depth resources.

Pure Mathematics – Grade 12

- Two multicomponent series approved; one breadth and depth, and one breadth.

It is anticipated that other suitable submissions, particularly for grades 11 and 12, will be received as part of the next call for resources. As well, additional components to currently approved breadth resources are expected; if so, the resources would be eligible for reclassification from breadth, to breadth and depth.

**Organization**

The resources in this bibliography are organized by course, then alphabetically by title. Resources suitable for more than one course appear with each applicable course, thus providing a comprehensive list of materials for all courses.


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Resources are described in annotated format as seen in the sample on page 5. If a resource is deemed to be particularly suited to students with special needs or for small populations; e.g., learning disabled, gifted, this is indicated in the Audience section of the annotation.

An alphabetical title listing at the end of the bibliography summarizes the designated course(s) for each resource.

**Note**: In the annotations, Common Curriculum Framework is used to refer to *The Common Curriculum Framework for K–12 Mathematics Grade 10 to Grade 12: Western Canadian Protocol for Collaboration in Basic Education.*

**Alternate Format(s)**

Some of the WCP approved resources are, or may be, available in alternate formats to address the needs of students who are visually impaired or print disabled. This information is included in the annotations.

**Pricing Information**

The prices appearing in this document represent the estimated WCP prices to schools and should be firm until August 31, 2001.

These prices should be used as a guideline for purchase planning. They are applicable to all six participating jurisdictions. The final selling prices for these resources may vary slightly in jurisdictions with book bureaus, depending upon jurisdictional negotiations. Confirmation of pricing should be obtained directly from your jurisdictional book bureau or redistribution centre, if applicable.

**Resource Category**

All learning and teaching resources included in this annotated bibliography were approved by the Western Assistant Deputy Ministers' Steering Committee and designated as WCP Key Resources for the Common Curriculum Framework.

**Definitions**

*Fidelity* is the degree to which the learning or teaching resource addresses the general and specific outcomes in the Common Curriculum Framework.

*WCP Key Resources* are high quality learning and teaching resources that best address the philosophy and content of the outcomes embodied in the Common Curriculum Framework. The resources include a variety of media and formats, with the following characteristics:

- *Breadth*—learning resources with the highest possible level of fidelity with the general and specific outcomes published for a course.
- *Depth*—learning resources that address a limited range of general and specific outcomes for a cluster or set of clusters, but provide an especially effective learning experience for students.
- *Breadth and Depth*—comprehensive learning resources that provide both the *breadth* and *depth* dimensions for a particular course.
- *Teacher*—resources that assist teachers with the implementation of the Common Curriculum Framework and any courses derived from it.

**Criteria for the Selection of Learning and Teaching Resources**

Resources in this annotated bibliography were selected according to the following criteria:

*Content and Curriculum Fit* includes the effectiveness in the way the resource:
- supports any given learning outcome within a strand or substrand
- meets student needs

*Instructional Design* includes:
- organization and presentation techniques
- methods used to introduce, develop and summarize concepts
- vocabulary level of the resource
- suitability to student learning styles or to special audiences

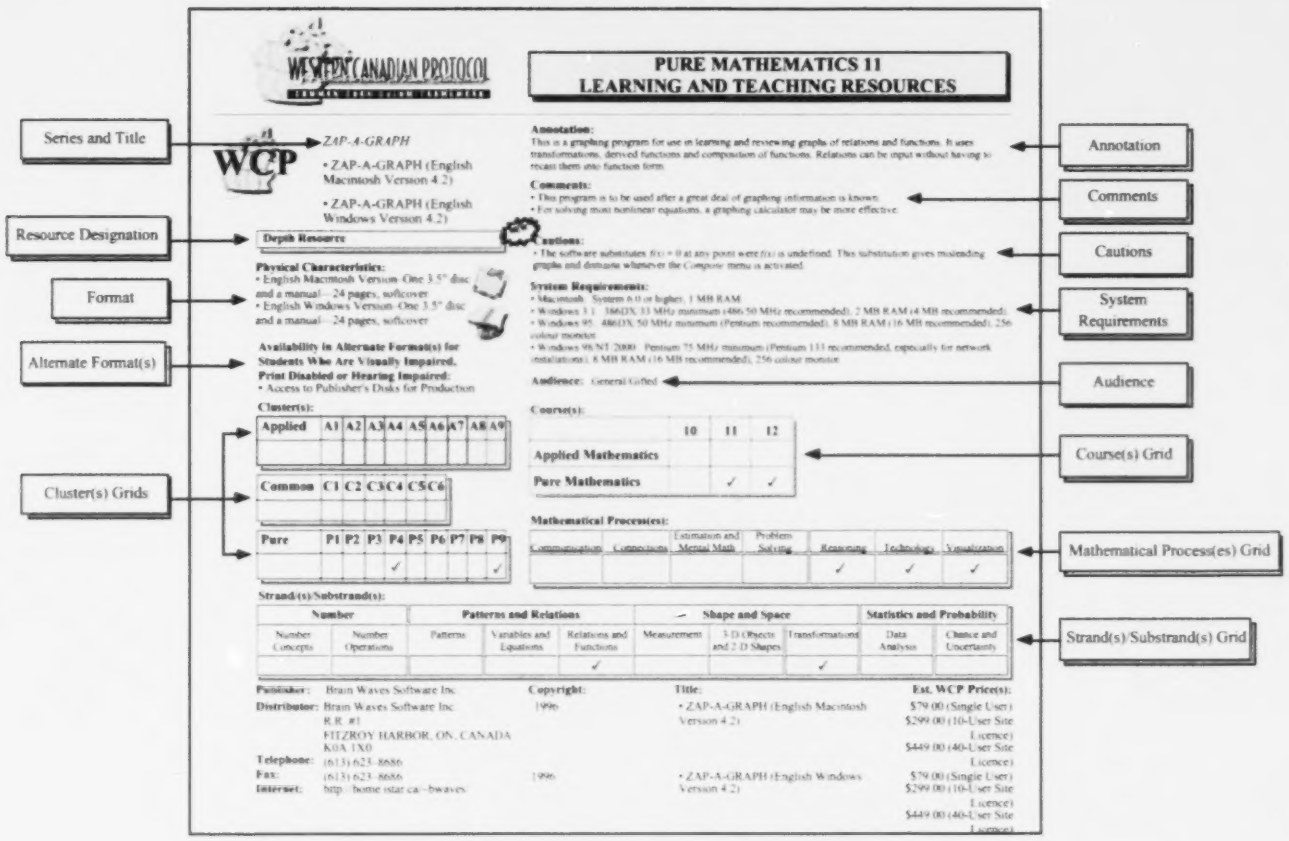
*Technical Design* includes such factors as:
- for print—binding, type of print, quality of illustrations, durability and format
- for software—hardware requirements, ease of navigation and robustness of programming. Software must run on operating systems that are easy for students to use and readily available in schools. At present, listed resources run on Windows 3.1, Windows 95 / 98 / NT / 2000 and Macintosh System 6.0 and later. It is conceivable that resources that run on additional operating systems, such as Linux, may be included in future lists of approved resources
- for multimedia resources—pacing, quality of pictures/sound, user friendliness, use of special features for emphasis and interactivity

*Social Considerations* includes screening for social concerns.

When selecting learning and teaching resources from this list, consideration should be given to how the resources meet the learning needs of students and to the perspectives of the local community.

Information on a resource may be obtained from the descriptions in this bibliography, from the distributor, from published reviews or colleagues, and from an examination of the resource.

# SAMPLE ANNOTATION


WESTERN CANADIAN PROTOCOL
PURE MATHEMATICS 11
LEARNING AND TEACHING RESOURCES
Series and Title
Resource Designation
Format
Alternate Format(s)
Cluster(s) Grids
Annotation
Comments
Cautions
System Requirements
Audience
Course(s) Grid
Mathematical Process(es) Grid
Strand(s)/Substrand(s) Grid
ZAP-A-GRAPH
• ZAP-A-GRAPH (English Macintosh Version 4.2)
• ZAP-A-GRAPH (English Windows Version 4.2)
Depth Resource
Physical Characteristics:
• English Macintosh Version–One 3.5" disc and a manual—24 pages, softcover
• English Windows Version–One 3.5" disc and a manual—24 pages, softcover
Availability in Alternate Format(s) for Students Who Are Visually Impaired, Print Disabled or Hearing Impaired:
• Access to Publisher's Disks for Production
Annotation:
This is a graphing program for use in learning and reviewing graphs of relations and functions. It uses transformations, derived functions and composition of functions. Relations can be input without having to recast them into function form.
Comments:
• This program is to be used after a great deal of graphing information is known.
• For solving most nonlinear equations, a graphing calculator may be more effective.
Cautions:
• The software substitutes f(x) = 0 at any point where f(x) is undefined. This substitution gives misleading graphs and domains whenever the Compose menu is activated.
System Requirements:
• Macintosh: System 6.0 or higher; 1 MB RAM
• Windows 3.1: 386DX 33 MHz minimum (486 50 MHz recommended); 2 MB RAM (4 MB recommended)
• Windows 95: 486DX 50 MHz minimum (Pentium recommended); 8 MB RAM (16 MB recommended); 256 colour monitor
• Windows 98/NT 2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor
Audience: General Gifted
Cluster(s):
Applied A1 A2 A3 A4 A5 A6 A7 A8 A9
Common C1 C2 C3 C4 C5 C6
Pure P1 P2 P3 P4 P5 P6 P7 P8 P9
Course(s):
10 11 12
Applied Mathematics
Pure Mathematics ✓ ✓
Mathematical Process(es):
Communication Connections Estimation and Mental Math Problem Solving Reasoning Technology Visualization
✓ ✓ ✓
Strand(s)/Substrand(s):
Number: Number Concepts, Number Operations
Patterns and Relations: Patterns, Variables and Equations, Relations and Functions ✓
Shape and Space: Measurement, 3-D Objects and 2-D Shapes, Transformations ✓
Statistics and Probability: Data Analysis, Chance and Uncertainty
Publisher: Brain Waves Software Inc.
Distributor: Brain Waves Software Inc.
R.R. #1
FITZROY HARBOR, ON. CANADA
K0A 1X0
Telephone: (613) 623-8686
Fax: (613) 623-8686
Internet: http://home.istar.ca/~bwaves
Copyright: 1996
Title: • ZAP-A-GRAPH (English Macintosh Version 4.2)
Est. WCP Price(s): $79.00 (Single User) $299.00 (10-User Site Licence) $449.00 (40-User Site Licence)
Copyright: 1996
Title: • ZAP-A-GRAPH (English Windows Version 4.2)
$79.00 (Single User) $299.00 (10-User Site Licence) $449.00 (40-User Site Licence)

- *Series and Title:* series names are indicated by italics.
  - The "New" identifies what is new for 2000. It may be a new resource or a new component in a multicomponent resource.
- *Resource Designation:* indicates breadth, depth, breadth and depth, or teacher resource.
- *Format:* describes physical characteristics and is represented by an icon, such as:

CD-ROM

Kit

Print

Software

- *Alternate Format(s):* indicates which resources are or could be available in alternate formats for students who are visually impaired or print disabled.
- *Cluster(s) Grids:* identify the cluster(s) of outcomes that are addressed in the resource.
- *Annotation:* provides an overview of the resource.
- *Comments:* provide additional information about the resource.
- *Cautions:* alert teachers to potentially sensitive issues / community concerns, or concerns about curriculum fit.
- *System Requirements:* specify the type of hardware, and the operating system, required to run the software, and any other system information.
- *Audience* (students and teachers of these students):
  - General: the majority of students.
  - Learning Disabled (LD): students who have difficulty in processing and understanding spoken, written or visual information.
  - Gifted: students who give evidence of high performance capability in areas such as intellect, creativity, or specific academic disciplines.
- *Course(s) Grid:* identifies the course(s) for which the resource is most suitable.
- *Mathematical Process(es) Grid:* identifies those processes students will use when working through the activities provided in the resource.
- *Strand(s)/Substrand(s) Grid:* allows teachers to readily see the fit between the Common Curriculum Framework strands/substrands and the outcomes covered in the resource.



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# APPLIED MATHEMATICS 10
# LEARNING AND TEACHING RESOURCES

*Addison-Wesley Applied Mathematics 10 (Western Canadian Edition)*
- Applied Mathematics 10: Source Book
- Applied Mathematics 10: Project Book
- Applied Mathematics 10: Teacher's Resource Book

## Breadth and Depth Resource

**Author(s):**
Alexander, R. et al.

**Physical Characteristics:**
- Source Book—464 pages, hardcover
- Project Book—100 pages, softcover
- Teacher's Resource Book—Seven booklets (approximately 200 pages) and one CDROM (Macintosh/Windows), all in a 3-ring binder

**Availability in Alternate Format(s) for Students Who Are Visually Impaired, Print Disabled or Hearing Impaired:**
- Access to Publisher's Disks for Production

**Annotation:**
This resource package is closely related to the philosophy and content of the Common Curriculum Framework.

- *Source Book*

The source book has seven chapters that develop topics from the Common Curriculum Framework strands. Each chapter includes an overview of the learning, a chapter project that usually requires research, and a hands-on activity. A series of tutorials is used to develop specific mathematical concepts. The typical tutorial consists of a section for practising prior skills, one or more investigations, exercises, and sections for discussing and communicating ideas. An inquiry approach is used to discover concepts in the development of the outcomes. Applications and problem-solving questions use real-life examples. Major examples that incorporate graphing calculators and computer software occur throughout the resource. A chain link icon is used in the source book to identify links to projects in the project book and to resources in the source book. Each chapter ends with a "Consolidating Your Skills" section that consists of an activity, review problems and a summary of the chapter project with illustrations of actual student work. Resources at the end of the source book include utilities, a student reference, answers and an index.

- *Project Book*

This resource consists of 20 additional projects for students that provide an opportunity to apply mathematics in a new context. Each project consists of several components: an outline of the purpose, a materials list, background information, a link to the required skills developed in the student source book, an exploration of the basic mathematical concepts underlying the project application, suggestions for presenting the project results, and a description of related career opportunities. The projects are open-ended and provide opportunities for problem solving, multiple strategies and group work.

- *Teacher's Resource Book*

The resource book provides a correlation of outcomes with text pages. Each section in the manual supplies supplementary examples and assessment examples the teacher can use during lessons. Blackline masters are included and can be used as practice exercises and in exam making. The enrichment section offers problem solving and applications of previously learned outcomes. Suggestions are included for sequencing and pacing the course content.

**Comments:**
- In order to cover all of the outcomes from the Common Curriculum Framework for Applied Mathematics 10, it is essential that the particular projects noted in the project book are completed by students.

**Cautions:**
- References are made to specific Internet web sites. **These web sites, including the one maintained by the publisher, are not approved. Teachers, for their own protection, should review the current status of the web sites, and the documents identified in the links, to ensure that the sites contain accurate information and information that meets the criteria of social considerations.**
- Teachers should consult any list of approved calculators or other calculator pol...es that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- Teachers should consult any assessment information or policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.

**System Requirements:**
- Macintosh: System 7.1 or higher; LC III (040 25 MHz recommended); 4 MB RAM (8 MB recommended); CD drive; either Microsoft Works or ClarisWorks.
- Windows 3.1: 386DX/33 MHz minimum; 4 MB RAM (8 MB recommended); CD drive; either Microsoft Works or ClarisWorks. Windows 95 recommended.
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 8 MB RAM (16 MB recommended); 256 colour monitor; 4X CD drive or faster; mouse; either ClarisWorks, Microsoft Works/Excel/Access.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended; especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor; 4X CD drive or faster; mouse; either ClarisWorks, Microsoft Works or Microsoft Excel/Access.

**Audience:** General

**Cluster(s):**

| Applied | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
|---|---|---|---|---|---|---|---|---|---|
| | ✓ | ✓ | | | | | | | |

| Common | C1 | C2 | C3 | C4 | C5 | C6 |
|---|---|---|---|---|---|---|
| | ✓ | ✓ | ✓ | | | |

| Pure | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| Applied Mathematics | ✓ | | |
| Pure Mathematics | | | |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

*Continued*

# APPLIED MATHEMATICS 10
# LEARNING AND TEACHING RESOURCES

*Continued*

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| ✓ | ✓ | | | ✓ | ✓ | ✓ | | ✓ | |

| | | Copyright: | ISBN: | Component Titles: | Est. WCP Price(s): |
|---|---|---|---|---|---|
| **Publisher:** | Addison Wesley Longman Ltd. | | | | |
| **Distributor:** | Pearson Education Canada<br>26 Prince Andrew Place<br>DON MILLS, ON, CANADA M3C 2T8 | 1999<br>1999 | 0201395851<br>020139586X | • Applied Mathematics 10: Source Book<br>• Applied Mathematics 10: Project Book | $62.95 (Source Book and Project Book Package) |
| **Telephone:** | (800) 263–9965; (416) 386–3412 | 2000 | 0201395878 | • Applied Mathematics 10: Teacher's Resource Book | $149.95 |
| **Fax:** | (416) 447–2551 | | | | |
| **Internet:** | http://www.pearsoned.com | | | | |

# APPLIED MATHEMATICS 10
# LEARNING AND TEACHING RESOURCES

WCP NEW

*GrafEq (Version 2.09)*

- GrafEq (Macintosh Version 2.09)

NEW

- GrafEq (Windows Version 2.09)

**Depth Resource**

**Physical Characteristics:**

- GrafEq (Macintosh Version 2.09)—Two 3.5" discs and a manual— approximately 100 pages—all in a 3-ring binder
- GrafEq (Windows Version 2.09)—Two 3.5" discs and a manual— approximately 100 pages—all in a 3-ring binder

**Annotation:**

This is a relation plotting tool that enables a student to graph functions from implicit and explicit definitions, and from relations as well as inequalities. It has the ability to save and print graphs, and to integrate these graphs into other documents.

**Comments:**

- The ability to print graphs is an advantage.
- The ability to blend colours is helpful when graphing systems of inequalities.
- Limited on-screen help is provided.
- Inequalities of the form < and ≤ cannot be distinguished from the display.

**System Requirements:**

- Macintosh: Minimum Macintosh Plus (PowerPC recommended); 2 MB RAM.
- Windows 3.1: 386DX/33 MHz minimum (486/50 recommended); 2 MB RAM (4 MB recommended); 256 colour monitor.
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 4 MB RAM (8 MB recommended); 256 colour monitor.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor.

**Audience:** General

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
| | | | | | ✓ | | | | ✓ |
| **Common** | C1 | C2 | C3 | C4 | C5 | C6 | | | |
| | | ✓ | | | | | | | |
| **Pure** | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 |
| | | | | ✓ | | ✓ | | ✓ | ✓ |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | ✓ | ✓ | ✓ |
| **Pure Mathematics** | ✓ | ✓ | ✓ |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| | | | | | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| | | | | ✓ | | | | | |

**Publisher:** Pedagoguery Software
**Distributor:** Pedagoguery Software
4446 Lazelle Avenue
TERRACE, BC, CANADA V8G 1R8
**Telephone:** (250) 638-8606
**Fax:** (250) 638-8606
**Internet:** http://www.peda.com

**Copyright:**
1999
1999

**Component Titles:**
GrafEq (Macintosh Version 2.09)
GrafEq (Windows Version 2.09)

**Est. WCP Price(s):**

GrafEq (Macintosh Version 2.09):
$95.00 (Single User)
$300.00 (Up to 30 computer site licence)
$350.00 (31–40 computer site licence)
$400.00 (41–50 computer site licence)
$450.00 (51–60 computer site licence)
$500.00 (61 or more computer site licence)

GrafEq (Windows Version 2.09):
$95.00 (Single User)
$300.00 (Up to 30 computer site licence)
$350.00 (31–40 computer site licence)
$400.00 (41–50 computer site licence)
$450.00 (51–60 computer site licence)
$500.00 (61 or more computer site licence)

# APPLIED MATHEMATICS 11
# LEARNING AND TEACHING RESOURCES

*GrafEq (Version 2.09)*

- GrafEq (Macintosh Version 2.09)
- GrafEq (Windows Version 2.09)

**Depth Resource**

**Physical Characteristics:**

- GrafEq (Macintosh Version 2.09)—Two 3.5" discs and a manual— approximately 100 pages—all in a 3-ring binder
- GrafEq (Windows Version 2.09)—Two 3.5" discs and a manual— approximately 100 pages—all in a 3-ring binder

**Annotation:**
This is a relation plotting tool that enables a student to graph functions from implicit and explicit definitions, and from relations as well as inequalities. It has the ability to save and print graphs, and to integrate these graphs into other documents.

**Comments:**

- The ability to print graphs is an advantage.
- The ability to blend colours is helpful when graphing systems of inequalities.
- Limited on-screen help is provided.
- Inequalities of the form < and ≤ cannot be distinguished from the display.

**System Requirements:**

- Macintosh: Minimum Macintosh Plus (PowerPC recommended); 2 MB RAM.
- Windows 3.1: 386DX/33 MHz minimum (486/50 recommended); 2 MB RAM (4 MB recommended); 256 colour monitor.
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 4 MB RAM (8 MB recommended); 256 colour monitor.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor.

**Audience:** General

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
| | | | | | ✓ | | | | ✓ |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Common** | C1 | C2 | C3 | C4 | C5 | C6 |
| | | ✓ | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Pure** | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 |
| | | | | ✓ | | ✓ | | ✓ | ✓ |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | ✓ | ✓ | ✓ |
| **Pure Mathematics** | ✓ | ✓ | ✓ |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| | | | | | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| | | | | ✓ | | | | | |

**Publisher:** Pedagoguery Software
**Distributor:** Pedagoguery Software
4446 Lazelle Avenue
TERRACE, BC, CANADA V8G 1R8
**Telephone:** (250) 638-8606
**Fax:** (250) 638-8606
**Internet:** http://www.peda.com

**Copyright:**
1999

**Component Titles:**
GrafEq (Macintosh Version 2.09)

**Est. WCP Price(s):**
$95.00 (Single User)
$300.00 (Up to 30 computer site licence)
$350.00 (31–40 computer site licence)
$400.00 (41–50 computer site licence)
$450.00 (51–60 computer site licence)
$500.00 (61 or more computer site licence)

1999

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# APPLIED MATHEMATICS 12
# LEARNING AND TEACHING RESOURCES

*GrafEq (Version 2.09)*

- GrafEq (Macintosh Version 2.09)
- GrafEq (Windows Version 2.09)

**Depth Resource**

**Physical Characteristics:**

- GrafEq (Macintosh Version 2.09)—Two 3.5" discs and a manual— approximately 100 pages—all in a 3-ring binder
- GrafEq (Windows Version 2.09)—Two 3.5" discs and a manual— approximately 100 pages—all in a 3-ring binder

**Annotation:**
This is a relation plotting tool that enables a student to graph functions from implicit and explicit definitions, and from relations as well as inequalities. It has the ability to save and print graphs, and to integrate these graphs into other documents.

**Comments:**

- The ability to print graphs is an advantage.
- The ability to blend colours is helpful when graphing systems of inequalities.
- Limited on/screen help is provided.
- Inequalities of the form < and ≤ cannot be distinguished from the display.

**System Requirements:**

- Macintosh: Minimum Macintosh Plus (PowerPC recommended); 2 MB RAM.
- Windows 3.1: 386DX/33 MHz minimum (486/50 recommended); 2 MB RAM (4 MB recommended); 256 colour monitor.
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 4 MB RAM (8 MB recommended); 256 colour monitor.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor.

**Audience:** General

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | **A1** | **A2** | **A3** | **A4** | **A5** | **A6** | **A7** | **A8** | **A9** |
| | | | | | ✓ | | | | ✓ |
| **Common** | **C1** | **C2** | **C3** | **C4** | **C5** | **C6** | | | |
| | | ✓ | | | | | | | |
| **Pure** | **P1** | **P2** | **P3** | **P4** | **P5** | **P6** | **P7** | **P8** | **P9** |
| | | | | ✓ | | ✓ | | ✓ | ✓ |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | ✓ | ✓ | ✓ |
| **Pure Mathematics** | ✓ | ✓ | ✓ |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| | | | | | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| **Number** | | **Patterns and Relations** | | | | **Shape and Space** | | **Statistics and Probability** | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| | | | | ✓ | | | | | |

**Publisher:** Pedagoguery Software
**Distributor:** Pedagoguery Software
4446 Lazelle Avenue
TERRACE, BC, CANADA V8G 1R8
**Telephone:** (250) 638–8606
**Fax:** (250) 638–8606
**Internet:** http://www.peda.com

**Copyright:**
1999

**Component Titles:**
GrafEq (Macintosh Version 2.09)

**Est. WCP Price(s):**
$95.00 (Single User)
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1999

GrafEq (Windows Version 2.09)

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$400.00 (41–50 computer site licence)
$450.00 (51–60 computer site licence)
$500.00 (61 or more computer site licence)

# PURE MATHEMATICS 10
# LEARNING AND TEACHING RESOURCES

*Addison-Wesley Mathematics 10 (Western Canadian Edition)*

- Student Text
- Independent Study Guide
- Teacher's Resource Book (includes CDROM)
- Template and Data Kit (CDROM Version 1.0)
- Acces Exercise Database (Macintosh/Windows Version 1.0A)
- Exercise and Problem Bank (Macintosh / Windows Version)

**Breadth and Depth Resource**

**Author(s):**
Alexander, R. et al.

**Physical Characteristics:**

- Student Text–651 pages, hardcover
- Independent Study Guide–138 pages, softcover
- Teacher's Resource Book–Includes 11 booklets—approximately 400 pages—and one CDROM, in a 3-ring binder
- Template and Data Kit–Teacher's Guide, 154 pages, coilbound; and one CDROM (for ClarisWorks, Macintosh 2.0, Windows 1.0, Microsoft Works 3.0, Microsoft Office 97 and Windows 95)
- Acces Exercise Database–One CDROM and 257 pages, all in a 3-ring binder
- Exercise and Problem Bank—Approximately 200 pages, coilbound and one CDROM

**Annotation:**
This multicomponent resource is closely aligned with the content of the Common Curriculum Framework. The Framework's mathematical processes of communication, connections, estimation and mental mathematics, problem solving, reasoning, technology and visualization are embedded throughout in examples, explanations and activities.

The learning of mathematics is supported in a variety of ways. Problem-solving contexts related to real-life situations are used to develop concepts and skills. Open-ended questions are designed to help students express their ideas about mathematics orally and in writing. Students are encouraged to work in small groups, where appropriate, to explore new ideas. Manipulatives are used to assist in understanding abstract concepts. The use of appropriate technology is integrated throughout the program

- *Student Text*

The nine chapters in the student text follow a consistent format in developing topics from the Common Curriculum Framework strands. Each chapter focuses on a connection problem, entitled "Mathematical Modelling." Relevant mathematical material either precedes the problem, or follows it, depending on the chapter. An inquiry approach is used to discover concepts in the development of outcomes. Practice exercises are included. Major examples that incorporate graphing calculators and computer software occur regularly. Visual presentations, icons and headings are used effectively to present material and guide students through the text.

- *Independent Study Guide*

The study guide provides students with additional examples and explanations to supplement the material in the student text. An introductory chapter helps the student develop efficient study skills. The other nine chapters parallel the chapters of the student text. They provide additional explanations, cross-referenced self-tests, mini-glossaries and overviews to assist students. Solutions to the guide's self-tests are given at the back of the guide in short form, and in more extended form on a CDROM included in the teacher's resource book.

- *Teacher's Resource Book*

This resource book provides comprehensive teaching notes for each section of the student text. In each of the chapters there is cross-referencing of the mathematical processes to the materials being presented to the students. There are blackline masters, as well as reinforcement, extension, enrichment and assessment activities. A graphing calculator handbook and reproducible graphing calculator activities are also included. Solutions to the student text and independent study guide are provided on a CDROM.

- *Template and Data Kit*

This resource includes four extensive databases—weather, helicopters, Olympic Summer Games and youth health. There are templates for the spreadsheet activities found in the student text. A teacher's guide contains spreadsheet and database tutorials, additional technology activities, teaching notes and answers. The activities address a wide variety of outcomes.

- *Acces Exercise Database*

This is an electronic database of over 2400 multiple-choice questions in print and on CDROM. The questions are divided into chapters and sections that mirror the student text. It requires the Acces program. The quality of the assessments constructed with this resource is entirely dependent on the quality of the items imported. This resource has clear instructions and navigation is relatively easy, so the resource is acceptable on technical criteria. It was not assessed on content and process validity, as the reviewers have no control as to the quality of material being imported.

- *Exercise and Problem Bank*

This resource can be used to create tests, record student progess, set up an online testing environment, and produce a grade book. Teachers may create their own questions or import questions directly from commercial test banks provided by Pearson Education Canada or other publishers. This resource was reviewed for technical considerations only; arrangement of the items and navigation through them is fully satisfactory.

**Comments:**
- The student resource highlights the mathematical processes and the philosophy of the Common Curriculum Framework through the use of appropriate section headings and icons.
- Emphasis given to technological solutions is most apparent in the teacher resource.
- Exercises are split into A, B and C levels. Students who only do the A exercises will not have enough exposure to the mathematical processes.
- Manipulatives, such as algebra tiles and suitable software, are necessary for effective use of the resource. These are not supplied with the resource.
- The template and data kit can only be used with ClarisWorks, Microsoft Works or Microsoft Excel/Access when used in a Windows 95 environment. In a Windows 3.1 environment, only ClarisWorks can be used.
- In the Acces Exercise Database, the multiple-choice responses can be eliminated if just the question is desired.
- Experienced users will be able to use the Exercise and Problem Bank far more effectively than novices.

*Continued*

# PURE MATHEMATICS 10
# LEARNING AND TEACHING RESOURCES

*Continued*

**Cautions:**

- References are made to specific Internet web sites. **These web sites, including the one maintained by the publisher, are not approved. Teachers, for their own protection, should review the current status of the web sites, and the documents identified in the links, to ensure that the sites contain accurate information and information that meets the criteria of social considerations.**
- Teachers should consult any list of approved calculators or other calculator policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- Teachers should consult any assessment information or policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- In the treatment of the outcomes related to right-angled trigonometry, there is material in the student resource that relates only to the outcomes incorporated in the Common Curriculum Framework at the Grade 9 level.

**System Requirements:**

Template and Data Kit

- Macintosh: System 6.0.5 or higher; 4 MB RAM; mouse; ClarisWorks.
- Windows 3.1: 386DX/33 MHz minimum; 4 MB RAM (8 MB recommended); either Microsoft Works or ClarisWorks. Windows 95 recommended.
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 8 MB RAM (16 MB recommended); 256 colour monitor; 4X CD drive or faster; mouse; either ClarisWorks, Microsoft Works or Microsoft Excel/Access.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor.

Acces Exercise Database

- Macintosh: System 7.1 or higher; LC III (040 25 MHz recommended); 4 MB RAM (8 MB recommended); CD drive.
- Windows 3.1: 386DX/33 MHz minimum; 4 MB RAM (8 MB recommended); either Microsoft Works or ClarisWorks. Windows 95 recommended.
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 8 MB RAM (16 MB recommended); 256 colour monitor; 4X CD drive or faster; mouse; either ClarisWorks, Microsoft Works or Microsoft Excel/Access.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor.

**Audience:** General

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
| | | | | | | | | | |
| **Common** | C1 | C2 | C3 | C4 | C5 | C6 | | | |
| | ✓ | ✓ | ✓ | | | | | | |
| **Pure** | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 |
| | ✓ | ✓ | | | | | | | |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | | | |
| **Pure Mathematics** | ✓ | | |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | N/A | ✓ | ✓ |

**Publisher:** Addison-Wesley
**Distributor:** Pearson Education Canada
26 Prince Andrew Place
DON MILLS, ON, CANADA M3C 2T8
**Telephone:** (800) 263-9965; (416) 386-3412
**Fax:** (416) 447-2551
**Internet:** http://www.pearsoned.com

| Copyright: | ISBN: | Component Titles: | Est. WCP Price(s): |
|---|---|---|---|
| 1998 | 0201346192 | • Student Text | $49.95 |
| 1998 | 0201346206 | • Independent Study Guide | $5.95 |
| 1998 | 02013462 | • Teacher's Resource Book (includes CROM) | $119.95 |
| 1998 | 0201346230 | • Template and Data Kit (Teacher's Guide) (CDROM Version 1.0) | $119.95 |
| 1999 | 0201512815 (pkg.) | • Acces Exercise Database (Macintosh/Windows Version 1.0A) | $126.00 |
| 1999 | 0201346222 | • Exercise and Problem Bank (Macintosh / Windows Version) | $214.95 |

# PURE MATHEMATICS 10
# LEARNING AND TEACHING RESOURCES

## *GrafEq (Version 2.09)*

- GrafEq (Macintosh Version 2.09)
- GrafEq (Windows Version 2.09)

**Depth Resource**

**Physical Characteristics:**

- GrafEq (Macintosh Version 2.09)—Two 3.5" discs and a manual— approximately 100 pages—all in a 3-ring binder
- GrafEq (Windows Version 2.09)—Two 3.5" discs and a manual— approximately 100 pages—all in a 3-ring binder

**Annotation:**
This is a relation plotting tool that enables a student to graph functions from implicit and explicit definitions, and from relations as well as inequalities. It has the ability to save and print graphs, and to integrate these graphs into other documents.

**Comments:**
- The ability to print graphs is an advantage.
- The ability to blend colours is helpful when graphing systems of inequalities.
- Limited on/screen help is provided.
- Inequalities of the form < and ≤ cannot be distinguished from the display.

**System Requirements:**
- Macintosh: Minimum Macintosh Plus (PowerPC recommended); 2 MB RAM.
- Windows 3.1: 386DX/33 MHz minimum (486/50 recommended); 2 MB RAM (4 MB recommended); 256 colour monitor.
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 4 MB RAM (8 MB recommended); 256 colour monitor.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor.

**Audience:** General

**Cluster(s):**

| | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | | | | | ✓ | | | ✓ | |

| | C1 | C2 | C3 | C4 | C5 | C6 |
|---|---|---|---|---|---|---|
| **Common** | | ✓ | | | | |

| | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 |
|---|---|---|---|---|---|---|---|---|---|
| **Pure** | | | | ✓ | | ✓ | | ✓ | ✓ |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | ✓ | ✓ | ✓ |
| **Pure Mathematics** | ✓ | ✓ | ✓ |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| | | | | | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| | | | | ✓ | | | | | |

**Publisher:** Pedagoguery Software
**Distributor:** Pedagoguery Software
4446 Lazelle Avenue
TERRACE, BC, CANADA V8G 1R8
**Telephone:** (250) 638-8606
**Fax:** (250) 638-8606
**Internet:** http://www.peda.com

**Copyright:**
1999
1999

**Component Titles:**
GrafEq (Macintosh Version 2.09)
GrafEq (Windows Version 2.09)

**Est. WCP Price(s):**
$95.00 (Single User)
$300.00 (Up to 30 computer site licence)
$350.00 (31–40 computer site licence)
$400.00 (41–50 computer site licence)
$450.00 (51–60 computer site licence)
$500.00 (61 or more computer site licence)
$95.00 (Single User)
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$400.00 (41–50 computer site licence)
$450.00 (51–60 computer site licence)
$500.00 (61 or more computer site licence)

# PURE MATHEMATICS 11
# LEARNING AND TEACHING RESOURCES

WCP

*GrafEq (Version 2.09)*

- GrafEq (Macintosh Version 2.09)
- GrafEq (Windows Version 2.09)

**Depth Resource**

**Physical Characteristics:**

- GrafEq (Macintosh Version 2.09)—Two 3.5" discs and a manual— approximately 100 pages—all in a 3-ring binder
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**Annotation:**
This is a relation plotting tool that enables a student to graph functions from implicit and explicit definitions, and from relations as well as inequalities. It has the ability to save and print graphs, and to integrate these graphs into other documents.

**Comments:**

- The ability to print graphs is an advantage.
- The ability to blend colours is helpful when graphing systems of inequalities.
- Limited on-screen help is provided.
- Inequalities of the form < and ≤ cannot be distinguished from the display.

**System Requirements:**

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- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 4 MB RAM (8 MB recommended); 256 colour monitor.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor.

**Audience:** General

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | **A1** | **A2** | **A3** | **A4** | **A5** | **A6** | **A7** | **A8** | **A9** |
| | | | | | ✓ | | | | ✓ |
| **Common** | **C1** | **C2** | **C3** | **C4** | **C5** | **C6** | | | |
| | | ✓ | | | | | | | |
| **Pure** | **P1** | **P2** | **P3** | **P4** | **P5** | **P6** | **P7** | **P8** | **P9** |
| | | | | ✓ | | ✓ | | ✓ | ✓ |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | ✓ | ✓ | ✓ |
| **Pure Mathematics** | ✓ | ✓ | ✓ |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| | | | | | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| | | | | ✓ | | | | | |

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**Distributor:** Pedagoguery Software
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**Telephone:** (250) 638-8c06
**Fax:** (250) 638-8606
**Internet:** http://www.peda.com

**Copyright:**
1999
1999

| Component Titles: | Est. WCP Price(s): |
|---|---|
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# PURE MATHEMATICS 11
# LEARNING AND TEACHING RESOURCES

*MATHPOWER 11 (Western Edition)*
- Student Text
- Teacher's Resource
- Computer Data Bank (includes CDROM and Data Disk) (Macintosh / Windows Version)
- Blackline Masters
- Solutions

## Breadth and Depth Resource

**Author(s):**
Knill, G. et al.

**Physical Characteristics:**
- Student Text—670 pages, hardcover
- Teacher's Resource—415 pages, softcover
- Computer Data Bank (includes CDROM and Data Disk) (Macintosh / Windows Version)—234 pages, softcover + CDROM (Macintosh / Windows Version) + 1/2" diskette Computer Data Bank (Windows 95 / Microsoft Access 97 Version)
- Blackline Masters—245 pages, softcover
- Solutions—797 pages, softcover

**Annotation:**
This resource package closely maps the content and philosophy of the Common Curriculum Framework. The Framework's mathematical processes of communication, connections, estimation and mental mathematics, problem solving, reasoning, technology and visualization are integrated in examples and activities.

This resource supports the learning of mathematics in a variety of ways. Concepts and skills are presented in problem-solving contexts related to real-world situations. Questions are designed to help students express their ideas about mathematics orally and in writing. Students are encouraged to work in small groups, where appropriate, to explore new ideas. Manipulatives are used for the understanding of abstract concepts. The use of appropriate technology is an integral part of the program.

- *Student Text*

The student text has nine chapters that relate to topics from the Common Curriculum Framework strands. Each chapter includes a presentation of the concept, an explore and inquire section to develop the concept, and examples with worked solutions. Practice exercises, chapter reviews and cumulative reviews are provided. Suggestions are made for incorporating graphing calculators and computer software. Effective visual presentations are used throughout. Resources at the end of the text include data banks, answers, a glossary, an applications index and a technology index.

- *Teacher's Resource*

The teacher material includes prerequisite skills, outcomes, suggestions for lessons and activities, answers to textbook questions, and instructions on the use of the TI-83 graphing calculator.

- *Computer Data Bank*

This resource has a number of data banks as well as blackline masters for instructional use. It was reviewed for technical considerations only; navigation through the bank is satisfactory.

- *Blackline Masters*

This set contains additional assignments and tests with keys.

- *Solutions*

This resource contains solutions procedures as well as detailed answers to all the questions in the text. It was reviewed for technical considerations only; arrangement of the items and navigation through them is fully satisfactory.

**Comments:**
- The introductory pages of the student text, which outline the mathematical processes and the NCTM Standards, are an essential part of the resource.
- The most attractive feature of the Teacher's Resource Manual is the detailed instruction for the use of the TI-83 graphing calculator.
- The Blackline Masters can be used to accompany other classroom texts.

**Cautions:**
- References are made in the student and teacher materials to specific Internet web sites. **The web sites are not approved. Teachers, for their own protection, should review the current status of the web sites and documents identified in the links, to ensure that the site contains accurate information and information that meets the criteria of social considerations.**
- Teachers should consult any list of approved calculators or other calculator policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- Teachers should consult any assessment information or policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- The Teacher's Resource Manual contains few solutions to C level questions in the student text.
- Teachers may find that the time required to become familiar with the Data Bank software makes it difficult to implement.

**System Requirements:**
- Macintosh: System 6.0.5 or higher; 4 MB RAM; CD drive; mouse; ClarisWorks.
- Windows 3.1: 386DX/33 MHz minimum; 4 MB RAM (8 MB recommended); CD drive; either Microsoft Works or ClarisWorks (Windows 95 recommended).
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 8 MB RAM (16 MB recommended); 256 colour monitor; 4X CD drive or faster; mouse; either ClarisWorks, Microsoft Works or Microsoft Excel/Access.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor; 4X CD drive or faster; mouse; either ClarisWorks, Microsoft Works or Microsoft Excel/Access.

**Audience:** General

*Continued*

# PURE MATHEMATICS 11
# LEARNING AND TEACHING RESOURCES

*Continued*

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
| | | | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Common** | C1 | C2 | C3 | C4 | C5 | C6 |
| | | | | ✓ | ✓ | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Pure** | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 |
| | | | ✓ | ✓ | ✓ | | | | |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | | | |
| **Pure Mathematics** | | ✓ | |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| **Number** | | **Patterns and Relations** | | | | **Shape and Space** | | **Statistics and Probability** | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| **N/A** | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | **N/A** | **N/A** | **N/A** |

**Publisher:** McGraw-Hill Ryerson
**Distributor:** McGraw-Hill Ryerson Ltd.
300 Water Street
WHITBY, ON, CANADA L1N 9B6
**Telephone:** (800) 565-5758; (905) 430-5000
**Fax:** (800) 463-5885; (905) 430-5020
**Internet:** http://www.mcgrawhill.ca

| **Copyright:** | **ISBN:** | **Component Titles:** | **Est. WCP Price(s):** |
|---|---|---|---|
| 1999 | 0075525984 | • Student Text | $51.95 |
| 1999 | 0075525992 | • Teacher's Resource | $110.00 |
| 1999 | 007560020X | • Computer Data Bank (includes CDROM and Data Disk) (Macintosh / Windows Version) | $131.25 |
| 1999 | 007560499X | • Blackline Masters | $125.00 |
| 2000 | 0075603756 | • Solutions | $165.00 |

# PURE MATHEMATICS 11
# LEARNING AND TEACHING RESOURCES

NEW WCP

*Pure Mathematics 20 (Distance Learning Package)*

- Module 1: Consumer Mathematics
- Module 2: Equations and Inequalities
- Module 3: Quadratics
- Module 4: Functions
- Module 5: Mathematical Reasoning and Geometry
- Module 6: Coordinate Geometry and Trigonometry
- Assignment Booklets: Modules 1-6
- Learning Facilitator's Manual

**Breadth and Depth Resource**

**Physical Characteristics:**

- Module 1: Consumer Mathematics—149 pages, coilbound
- Module 2: Equations and Inequalities—218 pages, coilbound
- Module 3: Quadratics—279 pages, coilbound
- Module 4: Functions—305 pages, coilbound
- Module 5: Mathematical Reasoning and Geometry—162 pages, coilbound
- Module 6: Coordinate Geometry and Trigonometry—174 pages, coilbound
- Assignment Booklets: Modules 1-6—6 Assignment Booklets, 13-20 pages each, stapled
- Learning Facilitator's Manual—101 pages + Final Test (16 pages) + Teacher Questionnaire (4 pages), loose

**Annotation:**
This distance learning resource package includes six modules with assignments, and a learning facilitator's manual. Materials are integrated with the student text in *MATHPOWER 11* (McGraw-Hill Ryerson), and therefore it is referred to regularly. References to calculator and computer applications are made and explained. All mathematical processes are involved. In going to other resources for explorations and explanations, this resource package touches on a variety of learning styles.

**Comments:**
- This resource package is set up for individual learning and works best for individualized programs.
- This package cannot be used as a stand-alone resource, as it is reliant on the *MATHPOWER 11* student text.
- The introductory pages of each module outline the mathematical processes and the NCTM Standards and are an essential part of the student resources.
- Manipulatives, such as algebra tiles and suitable software, are necessary for using the resource package effectively. These are not supplied with the package.

**Cautions:**
- References are made in both the student and the teacher materials to specific Internet web sites. **These web sites are not approved. Teachers, for their own protection, should review the current status of the web sites and the documents identified in the links, to ensure that the site contains accurate information and information that meets the criteria of social considerations.**
- Teachers should consult any list of approved calculators or other calculator polices that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- Teachers should consult any assessment information or policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.

**Audience:** General

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | **A1** | **A2** | **A3** | **A4** | **A5** | **A6** | **A7** | **A8** | **A9** |
| | | | | | | | | | |
| **Common** | **C1** | **C2** | **C3** | **C4** | **C5** | **C6** | | | |
| | | | | ✓ | ✓ | | | | |
| **Pure** | **P1** | **P2** | **P3** | **P4** | **P5** | **P6** | **P7** | **P8** | **P9** |
| | | | ✓ | ✓ | ✓ | | | | |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | | | |
| **Pure Mathematics** | | ✓ | |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |

*Continued*

# PURE MATHEMATICS 11
# LEARNING AND TEACHING RESOURCES

*Continued*

**Publisher:** Learning Technologies Branch - Alberta Learning
**Distributor:** Learning Resources Distributing Centre (LRDC)
12360 – 142 Street
EDMONTON, AB, CANADA T5L 4X9
**Telephone:** (780) 427-5258
**Fax:** (780) 422-9750
**Internet:** http://www.lrdc.edc.gov.ab.ca

| Copyright: | ISBN: | Component Titles: | Est. WCP Price(s): |
|---|---|---|---|
| 1999 | 0774115610 | • Module 1: Consumer Mathematics | $16.10 |
| 1999 | 0774115572 | • Module 2: Equations and Inequalities | $16.10 |
| 1999 | 0774115254 | • Module 3: Quadratics | $16.10 |
| 1999 | 0774115505 | • Module 4: Functions | $16.10 |
| 1999 | 0774115785 | • Module 5: Mathematical Reasoning and Geometry | $16.10 |
| 1999 | 0774115521 | • Module 6: Coordinate Geometry and Trigonometry | $16.10 |
| 1999 | | • Assignment Booklets: Modules 1-6 | $12.00 |
| 1999 | 0774115637 | • Learning Facilitator's Manual | $60.00 |

# PURE MATHEMATICS 11
# LEARNING AND TEACHING RESOURCES

WCP

*ZAP-A-GRAPH*

• ZAP-A-GRAPH (English Macintosh Version 4.2)

• ZAP-A-GRAPH (English Windows Version 4.2)

**Depth Resource**

**Physical Characteristics:**
• English Macintosh Version–One 3.5" disc and a manual—24 pages, softcover
• English Windows Version–One 3.5" disc and a manual—24 pages, softcover

**Availability in Alternate Format(s) for Students Who Are Visually Impaired, Print Disabled or Hearing Impaired:**
• Access to Publisher's Disks for Production

**Annotation:**
This is a graphing program for use in learning and reviewing graphs of relations and functions. It uses transformations, derived functions and composition of functions. Relations can be input without having to recast them into function form.

**Comments:**
• This program is to be used after a great deal of graphing information is known.
• For solving most nonlinear equations, a graphing calculator may be more effective.

NEW **Cautions:**
• The software substitutes $f(x) = 0$ at any point where $f(x)$ is undefined. This substitution gives misleading graphs and domains whenever the *Compose* menu is activated.

**System Requirements:**
• Macintosh: System 6.0 or higher; 1 MB RAM.
• Windows 3.1: 386DX/33 MHz minimum (486/50 MHz recommended); 2 MB RAM (4 MB recommended).
• Windows 95: 486DX/50 MHz minimum (Pentium recommended); 8 MB RAM (16 MB recommended); 256 colour monitor.
• Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor.

**Audience:** General/Gifted

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
| | | | | | | | | | |
| **Common** | C1 | C2 | C3 | C4 | C5 | C6 | | | |
| | | | | | | | | | |
| **Pure** | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 |
| | | | | ✓ | | | | | ✓ |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | | | |
| **Pure Mathematics** | | ✓ | ✓ |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| | | | | ✓ | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| | | | | ✓ | | | ✓ | | |

**Publisher:** Brain Waves Software Inc.
**Distributor:** Brain Waves Software Inc.
R.R. #1
FITZROY HARBOR, ON, CANADA
K0A 1X0
**Telephone:** (613) 623–8686
**Fax:** (613) 623–8686
**Internet:** http://home.istar.ca/~bwaves/

**Copyright:**
1996
1996

**Component Titles:**
• ZAP-A-GRAPH (English Macintosh Version 4.2)
• ZAP-A-GRAPH (English Windows Version 4.2)

**Est. WCP Price(s):**
$79.00 (Single User)
$299.00 (10–User Site Licence)
$449.00 (40–User Site Licence)
$79.00 (Single User)
$299.00 (10–User Site Licence)
$449.00 (40–User Site Licence)

# PURE MATHEMATICS 12
# LEARNING AND TEACHING RESOURCES

*Addison-Wesley Mathematics 12 (Western Canadian Edition)*
- Student Text
- Template and Data Kit (Macintosh/Windows Version 1.0)
- Teacher's Resource Book
- Independent Study Guide

## Breadth and Depth Resource

**Author(s):**
LeBlanc, D.

**Physical Characteristics:**
- Student Text—624 pages, hardcover
- Template and Data Kit–Teacher's Guide—35 pages, softcover; CDROM
- Teacher's Resource Book—Nine paperbound sections (approximately 250 pages) and one CDROM
- Independent Study Guide—144 pages, softcover

**Annotation:**
This multicomponent resource is closely aligned with the content of the Common Curriculum Framework. The Framework's mathematical processes of communication, connections, estimation and mental mathematics, problem solving, reasoning, technology and visualization are embedded throughout in examples, explanations and activities.

The learning of mathematics is supported in a variety of ways. Problem-solving contexts related to real-life situations are used to develop concepts and skills. Open-ended questions are designed to help students express their ideas about mathematics orally and in writing. Students are encouraged to work in small groups, where appropriate, to explore new ideas. Manipulatives are used to assist in understanding abstract concepts. The use of appropriate technology is integrated throughout the program.

- *Student Text*

The nine chapters in the student text follow a consistent format in developing topics from the Common Curriculum Framework strands. Each chapter focuses on a connection problem, entitled "Mathematical Modelling." Relevant mathematical material either precedes the problem, or follows it, depending on the chapter. An inquiry approach is used to discover concepts in the development of outcomes. Practice exercises are included. Major examples that incorporate graphing calculators and computer software occur regularly. Visual presentations, icons and headings are used effectively to present material and guide students through the text.

- *Template and Data Kit*

This resource includes four extensive databases—cars, crimes, food manufacturing and NBA statistics. There are templates for the spreadsheet activities found in the student text. A teacher's guide contains spreadsheet and database tutorials, additional technology activities, teaching notes and answers. The activities address a wide variety of outcomes.

- *Teacher's Resource Book*

This resource book provides a correlation of outcomes with text pages. Each section in the manual supplies supplementary examples and assessment examples the teacher can use during lessons. Blackline masters are included and can be used as practice exercises and in exam making. The enrichment section offers problem solving and applications of previously learned outcomes.

- *Independent Study Guide*

The study guide covers each of the chapters in the text. It correlates directly with the text sections. It offers study skills hints, exam writing hints and many practice questions.

**Comments:**
- The period of a sine or cosine function (specific outcome P8–8) is covered twice, once using the equation $y = \sin kx$ (period $= 2\pi/k$) for irrational periods and once using $y = \sin(2\pi/T)x$ for rational periods.
- When covering the normal approximation to the binomial distribution, there is no use of a continuity correction, either in the text or in the solutions. This approximation is satisfactory where the interval is ten units or longer, but may cause problems when the interval is shorter.
- Examples in the Teacher's Resource Book can be used by teachers during lessons. Masters can be used as exam questions or even practice questions.
- The Independent Study Guide could be used by students on their own or in the classroom.
- In the treatment of exponential functions, references are made to world population and to bacterial growth. Teachers are advised to consult with their science colleagues so that conclusions can be discussed in a realistic, not alarmist, framework.

**Cautions:**
- In the Teacher's Resource Book, the correlation of outcomes with the student text on page 29 has an error: the outcomes P7-12 to P7-18 should be P7-1 to P7-7.
- The Teacher's Resource Book does not offer many teaching strategies.
- References are made to specific Internet web sites. **These web sites, including the one maintained by the publisher, are not approved. Teachers, for their own protection, should review the current status of the web sites, and the documents identified in the links, to ensure that the sites contain accurate information and information that meets the criteria of social considerations.**
- Teachers should consult any list of approved calculators or other calculator policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- Teachers should consult any assessment information or policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- The treatment of permutations, combinations, and conditional probability in this resource depends heavily on the structure of gambling games such as Keno. Web references lead easily to sites that discuss gambling strategies and that encourage gambling. These references are likely to cause offense to some students and communities. Teachers are strongly urged to carefully consider student and community values, and use other real-world contexts if there is any possibility of the gambling context being offensive.

BEST COPY AVAILABLE

*Continued*

# PURE MATHEMATICS 12
# LEARNING AND TEACHING RESOURCES

*Continued*

**System Requirements:**

- Macintosh: System 6.0.5 or higher; 4 MB RAM; CD drive; mouse; ClarisWorks.
- Windows 3.1: 386DX/33 MHz minimum; 4 MB RAM (8 MB recommended); CD drive; either Microsoft Works or ClarisWorks. Windows 95 recommended.
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 8 MB RAM (16 MB recommended); 256 colour monitor; 4X CD drive or faster; mouse; either ClarisWorks, Microsoft Works or Microsoft Excel/Access.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor; 4X CD drive or faster; mouse; either ClarisWorks, Microsoft Works or Microsoft Excel/Access.

**Audience:** General/Gifted

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
| | | | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Common** | C1 | C2 | C3 | C4 | C5 | C6 |
| | | | | | | ✓ |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Pure** | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 |
| | | | | | | ✓ | ✓ | ✓ | ✓ |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | | | |
| **Pure Mathematics** | | | ✓ |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| **Number** | | **Patterns and Relations** | | | **Shape and Space** | | **Statistics and Probability** | |
|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| | | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ |

**Publisher:** Addison-Wesley Longman Ltd.
**Distributor:** Pearson Education Canada
26 Prince Andrew Place
DON MILLS, ON, CANADA M3C 2T8
**Telephone:** (800) 263-9965; (416) 386-3412
**Fax:** (416) 447-2551
**Internet:** http://www.pearsoned.com

| Copyright: | ISBN: | Component Titles: | Est. WCP Price(s): |
|---|---|---|---|
| 1999 | 020134629X | • Student Text | $51.75 |
| 1999 | 020134632X (Pkg.) | • Template and Data Kit (Macintosh/Windows Version 1.0) | $132.98 |
| 2000 | 0201346311 | • Teacher's Resource Book | $147.75 |
| 2000 | 0201346303 | • Independent Study Guide | $6.30 |

# PURE MATHEMATICS 12
# LEARNING AND TEACHING RESOURCES

## *GrafEq (Version 2.09)*

- GrafEq (Macintosh Version 2.09)
- GrafEq (Windows Version 2.09)

**Depth Resource**

**Physical Characteristics:**
- GrafEq (Macintosh Version 2.09)—Two 3.5" discs and a manual— approximately 100 pages—all in a 3-ring binder
- GrafEq (Windows Version 2.09)—Two 3.5" discs and a manual— approximately 100 pages—all in a 3-ring binder

**Annotation:**
This is a relation plotting tool that enables a student to graph functions from implicit and explicit definitions, and from relations as well as inequalities. It has the ability to save and print graphs, and to integrate these graphs into other documents.

**Comments:**
- The ability to print graphs is an advantage.
- The ability to blend colours is helpful when graphing systems of inequalities.
- Limited on/screen help is provided.
- Inequalities of the form < and ≤ cannot be distinguished from the display.

**System Requirements:**
- Macintosh: Minimum Macintosh Plus (PowerPC recommended); 2 MB RAM.
- Windows 3.1: 386DX/33 MHz minimum (486/50 recommended); 2 MB RAM (4 MB recommended); 256 colour monitor.
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 4 MB RAM (8 MB recommended); 256 colour monitor.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor.

**Audience:** General

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
| | | | | | ✓ | | | | ✓ |
| **Common** | C1 | C2 | C3 | C4 | C5 | C6 | | | |
| | | ✓ | | | | | | | |
| **Pure** | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 |
| | | | | ✓ | | ✓ | | ✓ | ✓ |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | ✓ | ✓ | ✓ |
| **Pure Mathematics** | ✓ | ✓ | ✓ |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| | | | | | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| | | | | ✓ | | | | | |

**Publisher:** Pedagoguery Software
**Distributor:** Pedagoguery Software
4446 Lazelle Avenue
TERRACE, BC, CANADA V8G 1R8
**Telephone:** (250) 638-8606
**Fax:** (250) 638-8606
**Internet:** http://www.peda.com

| Copyright: | Component Titles: | Est. WCP Price(s): |
|---|---|---|
| 1999 | GrafEq (Macintosh Version 2.09) | $95.00 (Single User)<br>$300.00 (Up to 30 computer site licence)<br>$350.00 (31–40 computer site licence)<br>$400.00 (41–50 computer site licence)<br>$450.00 (51–60 computer site licence)<br>$500.00 (61 or more computer site licence) |
| 1999 | GrafEq (Windows Version 2.09) | $95.00 (Single User)<br>$300.00 (Up to 30 computer site licence)<br>$350.00 (31–40 computer site licence)<br>$400.00 (41–50 computer site licence)<br>$450.00 (51–60 computer site licence)<br>$500.00 (61 or more computer site licence) |

# PURE MATHEMATICS 12
# LEARNING AND TEACHING RESOURCES

WCP NEW NEW

*MATHPOWER 12 (Western Edition)*

- Student Text
- Computer Data Bank

**Breadth Resource**

**Author(s):**
Curran, D. et al.

**Physical Characteristics:**
- Student Text—524 pages, hardcover
- Computer Data Bank—60 pages, coilbound and one 3.5" diskette (Computer Data Bank, ClarisWorks 5.0 for Windows 95 / Microsoft Access 97 Version)

**Annotation:**
This resource package closely maps the content and philosophy of the Common Curriculum Framework. The Framework's mathematical processes of communication, connections, estimation and mental mathematics, problem solving, reasoning, technology and visualization are integrated in examples and activities.

This resource supports the learning of mathematics in a variety of ways. Concepts and skills are presented in problem-solving contexts related to real-world situations. Questions are designed to help students express their ideas about mathematics orally and in writing. Students are encouraged to work in small groups, where appropriate, to explore new ideas. Manipulatives are used for the understanding of abstract concepts. The use of appropriate technology is an integral part of the program.

• *Student Text*
The student text has nine chapters, and a detailed introduction with mathematics standards. Each chapter includes a presentation of the concept, an explore and inquire section to develop the concept, examples with worked solutions, exercises and reviews. The exercises cover a wide variety of types of questions e.g., simple routine questions to challenging application type questions. Effective visual presentations are used throughout. Resources at the end of the text include a glossary, answers, an applications index, a technology index and a general index.

• *Computer Data Bank*
This resource has a number of data banks as well as blackline masters for instructional use. It was reviewed for technical considerations only; navigation through the bank is satisfactory.

**Comments:**
- The student text should be used as a primary classroom resource.
- The introductory pages of the student text, which outline the mathematical processes and the NCTM standards, are an essential part of the resource.
- When covering the normal approximation to the binomial distribution, there is no use of a continuity correction, either in the text or in the solutions. This approximation is satisfactory where the interval is ten units or longer, but may cause problems when the interval is shorter.
- The Computer Data Bank can be used in conjunction with various sections of the text.

**Cautions:**
- References are made in the student and teacher materials to specific Internet web sites. **The web sites are not approved. Teachers, for their own protection, should review the current status of the web sites and the documents identified in the links, to ensure that the sites contain accurate information and information that meets the criteria of social considerations.**
- Teachers should consult any list of approved calculators or other calculator policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- Teachers should consult any assessment information or policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.

**System Requirements:**
- Windows 3.1: 386DX/33 MHz minimum; 4 MB RAM (8 MB recommended); either Microsoft Works or ClarisWorks. Windows 95 recommended.
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 8 MB RAM (16 MB recommended); 256 colour monitor; mouse; either ClarisWorks, Microsoft Works or Microsoft Excel/Access.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor; mouse; either ClarisWorks, Microsoft Works or Microsoft Excel/Access.

**Audience:** General

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | **A1** | **A2** | **A3** | **A4** | **A5** | **A6** | **A7** | **A8** | **A9** |
| | | | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Common** | **C1** | **C2** | **C3** | **C4** | **C5** | **C6** |
| | | | | | | ✓ |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Pure** | **P1** | **P2** | **P3** | **P4** | **P5** | **P6** | **P7** | **P8** | **P9** |
| | | | | | | ✓ | ✓ | ✓ | ✓ |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | | | |
| **Pure Mathematics** | | | ✓ |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

*Continued*

*Continued*

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | | Shape and Space | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| | | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ |

| | | Copyright: | ISBN: | Component Titles: | Est. WCP Price(s): |
|---|---|---|---|---|---|
| **Publisher:** | McGraw-Hill Ryerson | | | | |
| **Distributor:** | McGraw-Hill Ryerson Ltd.<br>300 Water Street<br>WHITBY, ON, CANADA L1N 9B6 | 2000 | 007552600X | • Student Text | $53.95 |
| | | 2000 | 0075600218 | • Computer Data Bank | $110.00 |
| **Telephone:** | (905) 430-5237 | | | | |
| **Fax:** | (905) 430-5194 | | | | |
| **Internet:** | http://www.mcgrawhill.ca | | | | |

## *ZAP-A-GRAPH*

- ZAP-A-GRAPH (English Macintosh Version 4.2)
- ZAP-A-GRAPH (English Windows Version 4.2)

**Depth Resource**

**Physical Characteristics:**
- English Macintosh Version–One 3.5" disc and a manual—24 pages, softcover
- English Windows Version–One 3.5" disc and a manual—24 pages, softcover

**Availability in Alternate Format(s) for Students Who Are Visually Impaired, Print Disabled or Hearing Impaired:**
- Access to Publisher's Disks for Production

**Annotation:**
This is a graphing program for use in learning and reviewing graphs of relations and functions. It uses transformations, derived functions and composition of functions. Relations can be input without having to recast them into function form.

**Comments:**
- This program is to be used after a great deal of graphing information is known.
- For solving most nonlinear equations, a graphing calculator may be more effective.

NEW **Cautions:**
- The software substitutes $f(x) = 0$ at any point where $f(x)$ is undefined. This substitution gives misleading graphs and domains whenever the *Compose* menu is activated.

**System Requirements:**
- Macintosh: System 6.0 or higher; 1 MB RAM.
- Windows 3.1: 386DX/33 MHz minimum (486/50 MHz recommended); 2 MB RAM (4 MB recommended).
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 8 MB RAM (16 MB recommended); 256 colour monitor.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor.

**Audience:** General/Gifted

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
| | | | | | | | | | |
| **Common** | C1 | C2 | C3 | C4 | C5 | C6 | | | |
| | | | | | | | | | |
| **Pure** | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 |
| | | | | ✓ | | | | | ✓ |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | | | |
| **Pure Mathematics** | | ✓ | ✓ |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| | | | | ✓ | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| | | | | ✓ | | | ✓ | | |

**Publisher:** Brain Waves Software Inc.
**Distributor:** Brain Waves Software Inc.
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**Fax:** (613) 623-8686
**Internet:** http://home.istar.ca/~bwaves/

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**Component Titles:**
- ZAP-A-GRAPH (English Macintosh Version 4.2)
- ZAP-A-GRAPH (English Windows Version 4.2)

**Est. WCP Price(s):**
$79.00 (Single User)
$299.00 (10–User Site Licence)
$449.00 (40–User Site Licence)
$79.00 (Single User)
$299.00 (10–User Site Licence)
$449.00 (40–User Site Licence)

# TITLE LISTING

| TITLE/SERIES | COURSE(S) |
|---|---|
| *Addison-Wesley Applied Mathematics 10 (Western Canadian Edition)* | Applied Mathematics 10 |
| • Applied Mathematics 10: Source Book | |
| • Applied Mathematics 10: Project Book | |
| NEW • Applied Mathematics 10: Teacher's Resource Book | |
| *Addison-Wesley Mathematics 10 (Western Canadian Edition)* | Pure Mathematics 10 |
| • Student Text | |
| • Independent Study Guide | |
| • Teacher's Resource Book (includes CDROM) | |
| • Template and Data Kit (CDROM Version 1.0) | |
| • Acces Exercise Database (Macintosh/Windows Version 1.0A) | |
| NEW • Exercise and Problem Bank (Macintosh / Windows Version) | |
| *Addison-Wesley Mathematics 12 (Western Canadian Edition)* | Pure Mathematics 12 |
| • Student Text | |
| • Template and Data Kit (Macintosh/Windows Version 1.0) | |
| NEW • Teacher's Resource Book | |
| NEW • Independent Study Guide | |
| *GrafEq (Version 2.09)* | Applied Mathematics 10 / 11 / 12 |
| NEW • GrafEq (Macintosh Version 2.09) | Pure Mathematics 10 / 11 / 12 |
| NEW • GrafEq (Windows Version 2.09) | |
| *MATHPOWER 11 (Western Edition)* | Pure Mathematics 11 |
| • Student Text | |
| NEW • Teacher's Resource | |
| NEW • Computer Data Bank (includes CDROM and Data Disk) (Macintosh / Windows Version) | |
| NEW • Blackline Masters | |
| NEW • Solutions | |
| *MATHPOWER 12 (Western Edition)* | Pure Mathematics 12 |
| NEW • Student Text | |
| NEW • Computer Data Bank | |

# TITLE LISTING

| TITLE/SERIES | COURSE(S) |
|---|---|
| *Pure Mathematics 20 (Distance Learning Package)* | Pure Mathematics 11 |
| • Module 1: Consumer Mathematics | |
| • Module 2: Equations and Inequalities | |
| • Module 3: Quadratics | |
| • Module 4: Functions | |
| • Module 5: Mathematical Reasoning and Geometry | |
| • Module 6: Coordinate Geometry and Trigonometry | |
| • Assignment Booklets: Modules 1-6 | |
| • Learning Facilitator's Manual | |
| *ZAP-A-GRAPH* | Pure Mathematics 11 / 12 |
| • ZAP-A-GRAPH (English Macintosh Version 4.2) | |
| • ZAP-A-GRAPH (English Windows Version 4.2) | |